

# Notice of Allowability

Application No.

09/550,816

Examiner

Kelly L. Jerabek

Applicant(s)

ANDERSSON ET AL.

Art Unit

2612

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to After Final Amendment filed on 8/18/2004.
2. ☒ The allowed claim(s) is/are 3-6, 10, 13-15, and 19-21 (renumbered 1-11 respectively).
3. ☒ The drawings filed on 09 March 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

## **DETAILED ACTION**

### ***Allowable Subject Matter***

Claims 3-6, 10, 13-15, and 19-21 allowed.

The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fail to anticipate or render obvious the following technical features as recited in the highlighted claims:

- a. "...resetting the amount of charge in the second active region at substantially the predetermined level prior to transferring the charge accumulated during the second period" as recited in claim 3.
- b. "...reading out a pixel signal level corresponding to the charge previously transferred to the sense node; resetting the sense node; resetting the amount of charge in the second active region substantially at the predetermined level; subsequently transferring charge from the second active region to the sense node; and reading out a pixel reset level corresponding to the charge most recently transferred to the sense node" as recited in claim 4.
- c. "...obtaining a differential signal based on the pixel signal level and the pixel reset level" as recited in claim 5.

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d. "...wherein setting and resetting the amount of charge in the second active region include flooding the second active region with charge and subsequently transferring charge from the second active region to the power supply node" as recited in claim 6.

e. "...setting an amount of charge in the second active region of each pixel at substantially a respective predetermined level prior to transferring the charge accumulated during the first period; and resetting the amount of charge in the second active region of each pixel at substantially the respective predetermined level prior to transferring the charge accumulated during the second period" as recited in claim 10.

f. "...wherein the controller is arranged to cause control signals to be provided to each pixel to cause the pixel to reset the amount of charge in the pixel's second active region at substantially the predetermined level prior to transferring the charge accumulated during the second period" as recited in claim 13.

g. "...wherein the controller is arranged to cause control signals to be provided to each pixel to cause the pixel to: read out a pixel signal level corresponding to the charge previously transferred to the pixel's sense node; reset the pixel's sense node; reset the amount of charge in the pixel's second active region substantially at the predetermined level; subsequently transfer charge from the pixel's second active region to the pixel's sense node; and read

out a pixel reset level corresponding to the charge most recently transferred to the pixel's sense node" as recited in claim 14.

h. "...wherein the controller is arranged to provide the control signals to each pixel so that all the pixels transfer the charge accumulated in the their respective photoactive regions during the second period at substantially the same time" as recited in claim 15.

i. "...wherein the controller is arranged to cause control signals to be provided to each pixel so that an amount of charge in the pixel's second active region is set substantially at the predetermined level prior to causing the transfer of charge accumulated during the second period from the pixel's photoactive region to the pixel's sense node" as recited in claim 19.

j. "...when each pixel includes a reset switch, and wherein the controller is arranged to enable the reset switch to reset the pixel after a pixel signal level is read out" as recited in claim 20.

k. "...wherein the controller is arranged to cause control signals to be provided to each pixel after the pixels are reset so that an amount of charge in each pixel's second active region is set substantially at the predetermined level, and subsequently to cause bias signals to be provided to transfer a pixel reset level from each pixel's second active region to the pixel's sense node" as recited in claim 21.


### ***Contacts***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kelly L. Jerabek whose telephone number is 703-305-8659. The examiner can normally be reached on Monday - Friday (8:00 AM - 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on 703-305-4929. The fax phone number for submitting all Official communications is 703-872-9306. The fax phone number for submitting informal communications such as drafts, proposed amendments, etc., may be faxed directly to the Examiner at 703-746-3059.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KLJ

  
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